

Name: _____

Date: _____

Calculus: Review for Q4 Exam 1

Mr. Callahan

This review sheet is not comprehensive. Be sure to study your notes and homework as well!

For questions 1-4, find the value of each definite integral.

1. $\int_1^2 x^2 dx$

2. $\int_{-1}^3 (3x^2 - 2x - 1) dx$

3. $\int_1^8 \left(\frac{x-2}{\sqrt[3]{x}} \right) dx$

4. $\int_0^\pi (2 + \sin(x)) dx$

5. Find the area between $f(x) = 2x^2 - 3x + 1$ and the x-axis on the interval $[1,2]$.

6. Find the area between $f(x) = x^2 - 9$ and the x-axis.

7. Find the area between $y = x^2 + 2x + 1$ and $y = 2x + 5$.

8. Find the area between $f(x) = x$ and $g(x) = 2 - x^2$.

9. Find the area of the shaded region on the accompanying graph:

